REMARKS/ARGUMENTS

Applicant amends claim 1 to replace the phrase "of the cap" with "of the spout;" claims 3-5 to depend from claim 2 rather than claim 1; claim 11 to add the word "and;" and claims 12 and 13 to recite "the bottom seal" to overcome the objections in accordance with paragraph 3 of the pending office action. Claim 2 is canceled and its text, which is amended to insert the word "sidewalls," is incorporated into claim 1.

Claim 9 is canceled and claim 19 is amended to recite "a spout cover bead engag[es] a spout bead" to overcome the Section 112 rejections in accordance with paragraph 5 of the office action. Claims 16, 18, and 19 are amended to add the term "cap" before the term "sidewall" for clarity.

Claims 1, 6-15, 17-19, and 21 have been rejected under Section 102 based on United States Patent Number 5,938,087 ("Randall"). Claim 2 has been rejected under Section 103 based on Randall in view of Injection Molding Handbook ("the Handbook"). Additional rejections under Section 103 have been based on Randall in view of Publication WO 01/96198 ("Degroot") and the Handbook (claims 3-5), Randall in view of United States Patent Number 4,793,501 ("Beck") (claim 16); and Randall in view of Degroot (claim 20).

Amended claim 1 is patentable because, *inter alia*, the cited art neither teaches nor suggests a closure having a spout including a pair of opposing vertical sidewalls that are "outwardly bulging upon molding" and yet "substantially . . . mutually rectilinear and parallel upon cooling after molding."

The office action cites the Handbook for the proposition that "mold cavity dimensions should be increased to compensate for shrinkage taking into account the particular variables of the part molded." (office action, paragraph 9) (citation omitted). Not only does the handbook neither teach nor suggest opposing vertical spout sidewalls that are "outwardly bulging upon molding" and "substantially . . . mutually rectilinear and parallel upon cooling after molding" or the underlying theory for such structure and its function, but the Handbook considered as a whole teaches the unpredictability of the proposition for which it is cited.

Regarding the latter grounds, after explaining that "accurately determining the extent to which mold cavity dimensions should be increased to compensate for shrinkage is not an easy task when one has no experience in this area of technology," the Handbook states that,

assuming all information is available, a mold designer should be able to anticipate fairly accurately "the *shrinkage a given part will undergo* and *to avoid major miscalculations* that would entail costly mold remakes or alternations:

> As reviewed throughout this book molding shrinkage depends not only on the plastic's intrinsic properties but also on many variables such as part shaped, mold design, and molding process.
>
> From a knowledge of these factors affecting mold shrinkage, a mold designer should be able to anticipate fairly accurately the shrinkage a given part will undergo and to avoid major miscalculations that would entail costly mold remakes or alternations. This is a highly demanding task that moldmakers have been consistently performing.

INJECTION MOLDING HANDBOOK, 3rd ed., 1993 (Rosato, et al.), pages 721-23.

The Handbook explains, however, that anticipating shrinkage is "a highly demanding task that moldmakers have been consistently performing." *Id.* at 723.

The Handbook further explains that theory may be used to calculate shrinkage if the part has a simple shape, but for other shapes, "*particularly if the item is long*, complex, or tightly toleranced," calculated shrinkage is, more often than not, unreliable:

> Using these types of calculated shrinkage, theory can dictate how oversized to cut the tool (the mold or die) if a part has a relatively simple shape. For other shapes some critical key dimensions of the part will, more often than not, not be as predicted from the shrink allowance, particularly if the item is long, complex, or tightly toleranced.

Id. at 723 (near the bottom of column 2).

Accordingly, the Handbook teaches that anticipating the magnitude of shrinkage (even merely "to avoid major miscalculations") is a "highly demanding task" and only reliable for simple shapes. Calculating shrinkage from theory for long or tightly toleranced items will "more often than not" not produce the predicted results.

Moreover, even if the Handbook's apparently express teaching of the unpredictability of *shrinkage* of long shapes (like the spout recited in claim 1) could be ignored, the Handbook states nothing regarding the *change of shape* recited in Applicant's amended claim 1. The Handbook does not explain why, for example, a spout of the claimed configuration (including an elongated orifice) does not shrink uniformly, rather than from "outwardly bulging" to "substantially . . . mutually rectilinear and parallel" as claimed.

CONCLUSION

The cited art neither teaches nor suggests a limitation of Applicant's pending independent claim and, in fact, teaches the unpredictability of theory for calculating shrinkage of shapes (much less the actual change in the shape) like that claimed. Applicant submits that independent claim 1 is in condition for allowance and request reconsideration of the pending rejection. If the examiner determines that a telephone conference would further the prosecution of this case, he is invited to telephone the undersigned at his convenience.

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